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(54) **Oscillator with noise reduction function, writing device, and method of controlling the writing device**

(57) An oscillator with a noise reduction function is provided that can arbitrarily change the setting of a spread spectrum modulation and easily reduce the noise of electronic equipment, a writing device that can change the setting of the oscillator, and a control method of the writing device. The oscillator (10) has a memory (80) that stores modulation data (DM) for performing the spread spectrum modulation input from an output terminal (fout), a modulation signal output circuit (60) that

generates a modulation signal (SM) from the modulation data (DM) stored in the memory (80), and a mixer (53) that superimposes the modulation signal (SM) on the control voltage (VC) of a voltage control oscillator (VCO) (54) of a PLL circuit (50); by these means it becomes possible to output a spread spectrum modulated output signal (CLv) under a specification desired by a user by storing in the memory (80) the modulation data (DM) that corresponds to the spread spectrum modulation the user tries to set.

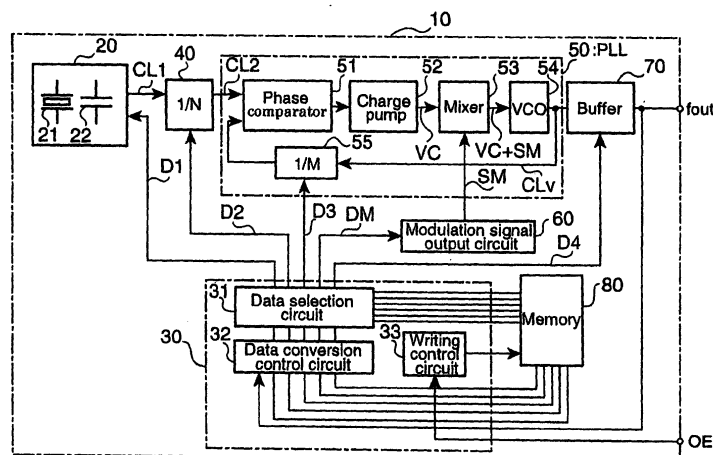


FIG. 1



European Patent
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EUROPEAN SEARCH REPORT

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X	US 6 175 259 B1 (MANN ERIC N ET AL) 16 January 2001 (2001-01-16) * column 2, line 3 - column 3, line 22; figure 1 * ---	1-12	
P,X	WO 02 25806 A (LEXMARK INT INC) 28 March 2002 (2002-03-28) * page 13, line 30 - page 18, line 24; figure 3 * -----	1-12	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			H04B H03L G06F
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 25 September 2003	Examiner Augarde, E
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	

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